Electronic Supplementary Information

Bio-inspired mechanically-adaptive nanocomposites derived from cotton cellulose whiskers

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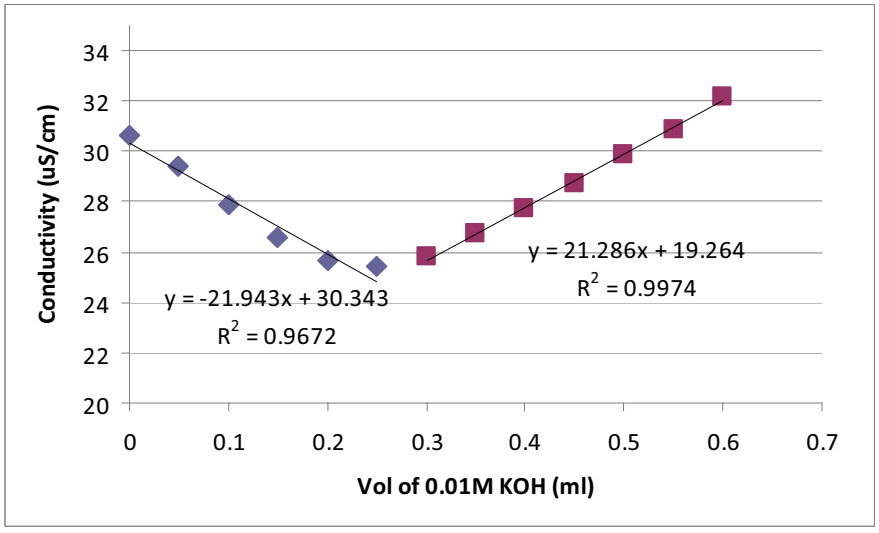

Figure S1: Conductometric titration of cotton cellulose whiskers in water. From the endpoint (0.256 mL of 0.01M KOH) and the quantity of whiskers in the aqueous whisker dispersion (83.6 mg), the surface charge density was determined by (0.256 ml · 10^{-2} mol) / 83.6 mg = 30.6 mmol/Kg

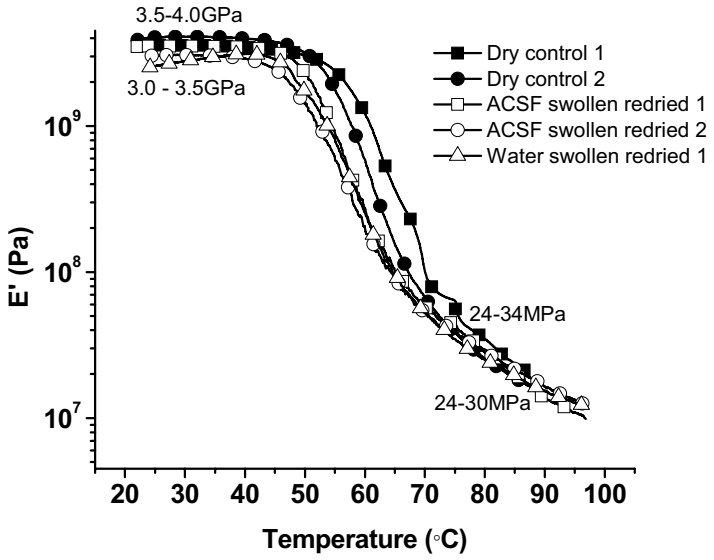

Figure S2: DMA temperature sweeps of 12.2%v/v CCW/PVAc nanocomposite films showing the reversibility of stiff - soft transition. Nanocomposite tested in dry condition and after exposing to ACSF or water at 37°C for 1 week and then redried back shows similar moduli both below and above T_g.